

NATIONAL TURFGRASS EVALUATION PROGRAM

The National Turfgrass Evaluation Program (NTEP) is designed to develop and coordinate uniform evaluation trials of turfgrass varieties and promising selections in the United States and Canada. Test results can be used by national companies and plant breeders to determine the broad picture of the adaptation of a cultivar. Results can also be used to determine if a cultivar is well adapted to a local area or level of turf maintenance.

Briefly, the NTEP is a self-supporting, non-profit program, sponsored by the Beltsville Agricultural Research Center and the National Turfgrass Federation, Inc. Program policy is made by a policy committee consisting of one member from each of the four (4) Regional Turfgrass Research Committees in the United States, one member from the Lawn Seed Division of the American Seed Trade Association, one member from the United States Golf Association (USGA) Green Section, one member from the Golf Course Superintendents Assoc. of America (GCSAA), one member for the Turfgrass Producers International (TPI), one member from the Turfgrass Breeders Association and an executive director. The program does not make variety recommendations. However, the data from tests can be used by extension specialists and others for making recommendations.

The policy committee is responsible for determining program policy including, (1) requirements for submission of entries, (2) scheduling tests, (3) evaluation methods, (4) selecting standard or control test entries, (5) setting entry fees, (6) coordinating tests in their respective regions, (7) establishing guidelines for publication and data distribution and (8) scheduling committee meetings.

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Mr. Ryan Jeffries, Columbia Seeds, Inc.
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A Guide to NTEP Turfgrass Ratings

Introduction

The quality and scientific merit of NTEP data is extremely important. However, the evaluation of turfgrass species and cultivars is a difficult and complex issue. Furthermore, turfgrass evaluation is generally a subjective process based on visual estimates of factors, like genetic color, stand density, leaf texture, uniformity and quality. These factors can not be measured in the same way as other agricultural crops. Turfgrass quality is not a measure of yield or nutritive value. Turfgrass quality is a measure of aesthetics (i.e. density, uniformity, texture, smoothness, growth habit and color), and functional use. The most common way of assessing turfgrass quality is a visual rating system that is based on the turfgrass evaluator's judgement.

General Considerations

Most visual ratings collected on NTEP trials are based on a 1 to 9 rating scale. One is the poorest or lowest and 9 is the best or highest rating. However, a few characteristics, such as winter kill or percent living ground cover, are rated on a percentage basis, again by using the evaluator's judgement. Most disease ratings found in NTEP reports will use the 1-9 scale, 9=no disease except where the evaluator made a judgement of the percentage of disease in each plot. Percent disease data will be found in separate tables and will normally not be included with disease data using the 1-9 scale.

Turfgrass Quality

Turfgrass Quality is based on 9 being outstanding or ideal turf and 1 being poorest or dead. A rating of 6 or above is generally considered acceptable. A quality rating value of 9 is reserved for a perfect or ideal grass, but it also can reflect an absolutely outstanding treatment plot. The NTEP requires quality ratings on a monthly basis. Quality ratings take into account the aesthetic and functional aspects of the turf. Quality ratings are not based on color alone, but on a combination of color, density, uniformity, texture, and disease or environmental stress.

Turfgrass quality ratings are grouped and presented by region, management level, a particular stress (shade, traffic, etc.) and in some cases, by individual location (starting with 2001 data, data from each location will be posted separately as well on the NTEP web site, <http://www.ntep.org>). Also available now is a summary table (Appendix) in the back of this report. This summary table includes various statistical measures not previously compiled for NTEP reports. For an explanation of this table and these changes, please go to the NTEP web site at <http://www.ntep.org/pdf/grandmean.mem.pdf>.

Other Ratings

More detailed information on the ratings of specific characteristics can be found on the NTEP web site at <http://www.ntep.org/reports/ratings.htm>.

2014 NATIONAL BENTGRASS TEST
(Putting Green)

LOCATIONS SUBMITTING DATA FOR 2016

State	Location	Code
California	San Francisco (California Golf Club)	CA5
California	Los Angeles (Los Angeles C.C.)	CA6
Georgia	Athens	GA1
Illinois	Glenview (North Shore C.C.)	IL4
Indiana	West Lafayette	IN1
Iowa	Ames	IA1
Kansas	Manhattan	KS1
Kentucky	Lexington	KY1
Massachusetts	Amherst (Traffic Study)	MA1
Michigan	East Lansing	MI1
Minnesota	St. Paul	MN1
Missouri	Columbia	MO1
New Jersey	North Brunswick	NJ1
North Carolina	Raleigh	NC1
Oklahoma	Stillwater	OK1
Utah	Logan	UT1
Utah	Logan (Drought)	UT2
Virginia	Blacksburg	VA1

2014 NATIONAL BENTGRASS TEST
(Putting Green)

Entries and Sponsors

Entry No	Name	Species	Sponsor
*1	Luminary	Creeping	Standard
*2	777 (DLFPS-AP/3054)	Creeping	DLF Pickseed USA
3	DLFPS-AP/3018	Creeping	DLF Pickseed USA
4	DLFPS-AP/3056	Creeping	DLF Pickseed USA
5	DLFPS-AP/3058	Creeping	DLF Pickseed USA
6	DLFPS-AP/3059	Creeping	DLF Pickseed USA
*7	Pure Select	Creeping	Tee-2-Green Corp.
*8	Penn A-1	Creeping	Standard
*9	Penncross	Creeping	Standard
*10	L-93XD	Creeping	Jacklin Seed by Simplot®
*11	Armor	Creeping	Jacklin Seed by Simplot®
*12	Kingdom	Creeping	Jacklin Seed by Simplot®
*13	Nightlife	Creeping	Jacklin Seed by Simplot®
*14	V-8	Creeping	Standard
15	GDE	Creeping	Semillas Fito
*16	Piranha (DC-1)	Creeping	Mountain View Seeds & Toyo Green Co. Ltd.
17	PST-ROPS	Creeping	Pure Seed Testing, Inc
*18	Shark	Creeping	Mountain View Seeds
*19	Barracuda	Creeping	Mountain View Seeds
*20	Declaration	Creeping	Standard

* Commercially Available in the USA in 2017.

TABLE A.

2016 LOCATIONS, SITE DESCRIPTIONS AND MANAGEMENT PRACTICES IN
THE 2014 NATIONAL BENTGRASS (GREEN) TEST

LOCATION	SOIL TEXTURE	SOIL PH	SOIL PHOSPHOROUS (LBS/ACRE)	SOIL POTASSIUM (LBS/ACRE)	NITROGEN (LBS/1000 SQ FT)	SUN OR SHADE	MOWING HEIGHT (IN)	IRRIGATION PRACTICED
CA5	SAND	6.6-7.0	0-60	151-240	0.0-1.0	FULL SUN	0.0-0.5	ONLY DURING SEVERE STRESS
CA6	SAND	7.1-7.5	0-60	151-240	2.1-3.0	LIGHT SHADE	0.0-0.5	TO PREVENT STRESS
GA3	LOAMY SAND	-	-	-	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
IA1	SANDY CLAY LOAM	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
IL4	SAND	-	61-150	0-150	-	FULL SUN	0.0-0.5	TO PREVENT STRESS
IN1	SAND	7.6-8.5	61-150	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT DORMANCY
KS1	-	-	-	-	-	-	-	-
KY1	SAND	7.6-8.5	61-150	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MA1	SAND	5.6-6.0	0-60	241-375	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MI1	-	-	-	-	-	-	-	-
MN1	SAND	7.1-7.5	0-60	0-150	2.1-3.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
MO1	-	-	-	-	-	-	-	-
NC1	SILTY CLAY LOAM	6.1-6.5	61-150	0-150	5.1-6.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
NJ1	SAND	6.1-6.5	0-60	151-240	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
OK1	SAND	7.1-7.5	61-150	241-375	3.1-4.0	FULL SUN	0.0-0.5	TO PREVENT STRESS
UT1	-	-	-	-	-	-	-	-
UT2	-	-	-	-	-	-	-	-
VA1	SILTY CLAY LOAM	6.1-6.5	61-150	151-240	3.1-4.0	FULL SUN	0.6-1.0	TO PREVENT DORMANCY

TABLE B.

LOCATIONS AND DATA COLLECTED IN 2016

LOCATION	JANUARY QUALITY RATING	FEBRUARY QUALITY RATING	MARCH QUALITY RATING	APRIL QUALITY RATING	MAY QUALITY RATING	JUNE QUALITY RATING	JULY QUALITY RATING	AUGUST QUALITY RATING	SEPTEMBER QUALITY RATING	OCTOBER QUALITY RATING	NOVEMBER QUALITY RATING	DECEMBER QUALITY RATING	GENETIC COLOR	SPRING GREENUP	LEAF TEXTURE
CA5	X	X	X	X	X	X	X	X	X	X	X	X	X		
CA6	X	X	X	X	X	X	X	X	X	X	X	X	X		
GA3						X	X	X	X	X	X	X	X		
IA1					X	X	X	X	X	X			X		
IL4				X	X	X	X	X	X	X			X		
IN1					X	X	X	X	X	X			X		X
KS1					X	X	X	X	X				X		
KY1			X	X	X	X	X	X	X						
MA1				X	X	X	X	X	X	X	X	X		X	
MI1				X	X	X	X	X	X	X			X	X	
MN1				X	X	X	X	X	X	X			X	X	
MO1			X	X	X	X	X	X	X	X					
NC1	X	X	X	X	X	X	X	X	X	X	X		X	X	X
NJ1			X	X	X	X	X	X	X	X			X	X	X
OK1				X	X	X	X	X	X	X	X	X			
UT1				X	X	X	X	X	X	X			X	X	
UT2				X	X	X	X	X	X	X				X	
VA1			X		X	X	X	X	X	X			X		

TABLE B. (CONT'D)

LOCATIONS AND DATA COLLECTED IN 2016

LOCATION	SPRING DENSITY	SUMMER DENSITY	FALL DENSITY	PERCENT COVER SPRING	PERCENT COVER SUMMER	PERCENT COVER FALL	WINTER COLOR	DOLLAR SPOT	BROWN PATCH WARM TEMP.	ANTHRACNOSE RATINGS	PINK SNOW MOLD
CA5		X	X								X
CA6	X	X									
GA3		X	X								
IA1											
IL4											
IN1	X	X									
KS1								X			
KY1								X	X		
MA1											
MI1								X			
MN1	X							X			
MO1								X	X		
NC1	X	X	X	X	X	X	X	X		X	
NJ1			X					X	X	X	
OK1		X	X	X	X	X	X				
UT1											
UT2											
VA1								X			

TABLE B. (CONT'D)

LOCATIONS AND DATA COLLECTED IN 2016

LOCATION	FALL COLOR NOVEMBER	COOPER SPOT	PERCENT POA ANNUA	WEAR TOLERANCE			DOLLAR SPOT COUNTS	DOLLAR SPOT INFECTION CENTERS		DOLLAR SPOT RATINGS				
				MAY	JULY	SEPTEMBER		JUNE	AUGUST	JUN	JUL	AUG	SEP	OCT
CA5														
CA6			X											
GA3														
IA1														
IL4	X													
IN1								X	X					
KS1														X
KY1										X	X			
MA1				X	X	X	X							
MI1												X	X	X
MN1														
MO1		X												
NC1														
NJ1												X	X	X
OK1														
UT1														
UT2														
VA1														

TABLE 1. MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/
A GREEN AT SIX LOCATIONS IN THE U.S. FOR LPI GROUP 1 **/
2016 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	ENTRY NUMBER	NJ1	NC1	GA3	IN1	MI1	IA1	MEAN
* PST-ROPS	17	6.1	7.6	7.2	7.6	6.8	6.8	7.0
* PIRANHA (DC-1)	16	6.5	7.6	6.1	7.2	6.7	6.8	6.8
* PURE SELECT	7	5.6	7.4	6.8	7.2	6.5	6.7	6.7
DLFPS-AP/3058	5	6.0	7.3	6.9	6.9	6.4	6.5	6.7
* L-93 XD	10	7.2	7.6	4.7	7.2	6.7	6.5	6.6
* 777 (DLFPS-AP/3054)	2	6.1	7.5	5.9	7.1	6.5	6.6	6.6
* LUMINARY	1	6.0	7.1	6.8	6.7	6.3	6.4	6.6
DLFPS-AP/3018	3	6.0	7.6	4.3	7.2	6.4	6.5	6.3
DLFPS-AP/3056	4	5.7	7.3	5.6	7.0	6.2	6.2	6.3
* SHARK	18	5.5	7.3	5.1	6.9	6.3	6.5	6.3
* V-8	14	5.7	7.5	4.3	7.1	6.3	6.5	6.2
* GDE	15	5.9	7.6	4.1	7.0	6.3	6.5	6.2
* BARRACUDA	19	5.7	7.3	5.0	6.7	6.2	6.3	6.2
* NIGHTLIFE	13	4.4	7.0	6.0	6.8	5.6	5.6	5.9
* ARMOR	11	4.1	6.7	6.0	6.9	5.6	5.6	5.8
DLFPS-AP/3059	6	4.7	6.9	5.0	6.3	5.7	6.2	5.8
* KINGDOM	12	4.4	7.0	4.4	6.9	5.5	5.3	5.6
* PENN A-1	8	4.3	7.0	4.1	6.4	5.6	6.0	5.6
* DECLARATION	20	5.0	7.0	3.5	6.3	5.6	5.9	5.6
* PENNCROSS	9	1.2	5.3	4.8	4.8	4.0	5.2	4.2
LSD VALUE		0.7	0.7	0.7	0.7	0.7	0.7	0.7
C.V. (%)		8.5	6.3	8.5	6.7	7.5	7.3	7.4

* COMMERCIALY AVAILABLE IN THE USA IN 2017.

**/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS AMMI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE AN AMMI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON AMMI, GO TO WWW.NTEP.OR/AMMI_Q&A.PDF

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 2. MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/
A GREEN AT FIVE LOCATIONS IN THE U.S. FOR LPI GROUP 2 */
2016 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	VA1	KY1	KS1	MEAN
GDE	6.3	6.8	6.3	6.5
DLFPS-AP/3018	6.2	6.8	6.1	6.4
V-8	6.2	6.6	6.0	6.3
BARRACUDA	5.9	6.7	6.1	6.2
PIRANHA (DC-1)	5.9	6.9	5.8	6.2
DECLARATION	5.9	6.4	6.2	6.2
PENN A-1	5.9	6.3	6.3	6.2
DLFPS-AP/3058	5.6	6.8	6.0	6.1
DLFPS-AP/3056	5.7	6.7	6.0	6.1
777 (DLFPS-AP/3054)	5.8	6.7	5.7	6.1
PURE SELECT	5.7	6.6	5.7	6.0
DLFPS-AP/3059	5.6	6.3	6.0	6.0
SHARK	5.8	6.4	5.7	6.0
L-93 XD	5.9	6.7	5.4	6.0
PST-ROPS	5.7	6.7	5.5	5.9
KINGDOM	5.5	6.3	6.1	5.9
NIGHTLIFE	5.3	6.4	6.1	5.9
LUMINARY	5.2	6.4	5.3	5.7
ARMOR	4.9	5.7	5.1	5.2
PENNCROSS	4.4	4.9	5.2	4.8
LSD VALUE	0.7	0.7	0.7	0.7
C.V. (%)	8.0	7.0	7.8	7.6

*/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS AMMI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE AN AMMI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON AMMI, GO TO WWW.NTEP.OR/AMMI_Q&A.PDF

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2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 3. MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/
A GREEN AT FIVE LOCATIONS IN THE U.S. FOR LPI GROUP 3 */
2016 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	MN1	M01	MEAN
DLFPS-AP/3058	6.1	6.1	6.1
BARRACUDA	6.0	5.8	5.9
PIRANHA (DC-1)	5.9	5.9	5.9
L-93 XD	6.1	5.7	5.9
GDE	5.9	5.7	5.8
DLFPS-AP/3056	5.7	5.7	5.7
DECLARATION	5.8	5.5	5.7
DLFPS-AP/3018	5.7	5.5	5.6
777 (DLFPS-AP/3054)	5.5	5.6	5.5
LUMINARY	5.4	5.5	5.5
NIGHTLIFE	5.0	5.4	5.2
V-8	5.2	5.2	5.2
DLFPS-AP/3059	5.1	5.2	5.1
PURE SELECT	4.8	5.3	5.1
KINGDOM	4.9	5.2	5.0
PENN A-1	4.9	5.0	4.9
PST-ROPS	4.6	5.2	4.9
SHARK	4.8	5.0	4.9
ARMOR	3.2	4.1	3.6
PENNCROSS	1.9	2.9	2.4
LSD VALUE	0.7	0.7	0.7
C.V. (%)	8.8	8.6	8.7

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1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 4. MEAN TURFGRASS QUALITY RATINGS OF BENTGRASS CULTIVARS GROWN ON 1/
A GREEN AT FIVE LOCATIONS IN THE U.S. FOR LPI GROUP 4 */
2016 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF 2/

NAME	OK1	UT1	MEAN
KINGDOM	6.7	7.6	7.1
NIGHTLIFE	6.7	7.3	7.0
PST-ROPS	6.7	7.0	6.8
ARMOR	6.4	6.9	6.7
DLFPS-AP/3056	6.4	6.7	6.6
DLFPS-AP/3018	6.5	6.6	6.5
PURE SELECT	6.5	6.5	6.5
777 (DLFPS-AP/3054)	6.4	6.5	6.4
PIRANHA (DC-1)	6.3	6.4	6.4
V-8	6.5	6.3	6.4
L-93 XD	6.0	6.7	6.3
DLFPS-AP/3058	6.3	6.4	6.3
GDE	6.4	6.2	6.3
BARRACUDA	6.2	6.1	6.2
SHARK	6.3	6.0	6.2
PENN A-1	6.3	5.6	6.0
LUMINARY	5.9	6.0	6.0
DECLARATION	6.0	5.7	5.9
DLFPS-AP/3059	6.1	5.4	5.7
PENNCROSS	5.3	3.0	4.2
LSD VALUE	0.7	0.7	0.7
C.V. (%)	7.2	7.3	7.2

*/ ENTRIES WITHIN THIS TABLE ARE ORDERED BY THE OVERALL MEAN AND HAVE SIMILAR TURF QUALITY PERFORMANCES IN ALL TEST LOCATIONS INCLUDED IN THIS AMMI GROUP. IF YOUR STATE IS NOT REPRESENTED, THEN CHOOSE AN AMMI GROUP THAT CONTAINS A LOCATION AND MANAGEMENT SIMILAR TO YOUR PLANTING CONDITIONS. FOR MORE INFORMATION ON AMMI, GO TO WWW.NTEP.OR/AMMI_Q&A.PDF

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 5.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN UNDER TRAFFIC STRESS AT AMHERST, MA 1/
2016 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	SPRING GREENUP	DOLLAR SPOT COUNTS/PLOT	WEAR TOLERANCE RATINGS			QUALITY RATINGS									MEAN
			MAY	JULY	SEPTEMBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
PST-ROPS	5.0	18.7	5.7	5.7	6.7	7.0	7.3	6.7	6.3	7.3	6.0	6.7	5.7	6.3	6.6
DLFPS-AP/3018	5.0	24.3	6.7	6.3	6.7	6.0	6.3	6.0	6.3	6.3	6.0	6.7	7.0	6.7	6.4
777 (DLFPS-AP/3054)	4.3	7.0	5.3	5.3	5.7	6.0	7.0	5.7	5.7	6.0	5.7	6.7	6.0	6.0	6.1
GDE	5.3	10.3	6.3	5.3	5.7	5.7	7.0	6.0	6.0	6.7	6.3	6.0	5.7	6.0	6.1
KINGDOM	5.0	5.7	7.7	6.7	6.7	6.7	7.7	6.3	5.3	6.0	6.3	5.3	5.7	5.7	6.1
PIRANHA (DC-1)	4.3	8.3	5.7	5.3	5.3	6.3	6.7	6.3	6.3	6.3	5.3	6.0	5.3	6.3	6.1
DLFPS-AP/3056	3.7	16.3	6.7	6.0	6.3	5.7	6.7	6.0	5.3	6.0	5.7	6.3	6.0	6.0	6.0
DLFPS-AP/3058	4.7	11.0	5.3	5.3	5.7	5.7	6.7	5.7	5.3	5.7	5.7	6.3	6.3	6.3	6.0
L-93 XD	4.7	24.7	5.0	5.7	6.7	6.0	6.3	6.0	5.7	6.3	5.3	6.3	6.3	6.0	6.0
BARRACUDA	4.0	40.3	5.7	6.3	5.7	6.0	6.7	5.3	5.7	5.7	5.7	6.0	6.0	5.3	5.8
NIGHTLIFE	4.0	10.3	7.3	6.7	5.7	6.3	7.0	5.7	5.7	6.3	6.0	5.0	5.3	5.0	5.8
PURE SELECT	4.7	6.7	5.0	5.0	4.7	5.3	6.3	6.3	5.7	6.3	5.7	6.3	5.0	5.3	5.8
LUMINARY	4.7	5.7	4.7	5.0	5.7	6.0	6.3	6.0	5.7	5.3	5.3	5.7	5.3	5.3	5.7
SHARK	4.0	17.3	4.7	5.3	5.7	5.7	5.7	5.3	5.3	5.7	6.0	5.7	5.0	5.0	5.5
V-8	4.7	16.7	5.7	5.7	6.3	6.3	6.3	5.3	5.3	6.3	5.3	5.3	5.0	4.3	5.5
DLFPS-AP/3059	3.7	21.7	6.3	5.3	5.3	5.3	6.3	5.7	5.0	5.3	5.3	5.7	5.0	5.3	5.4
DECLARATION	4.7	12.0	5.3	4.3	5.0	5.0	6.3	5.0	4.7	5.3	5.0	6.0	5.3	5.0	5.3
ARMOR	4.7	31.0	5.3	5.7	5.3	5.3	5.7	5.7	4.7	5.7	5.0	5.0	5.0	4.7	5.2
PENN A-1	3.0	21.7	6.0	5.7	6.0	5.0	5.7	5.0	4.3	4.7	5.3	5.0	5.0	4.7	5.0
PENNCROSS	2.3	30.3	3.7	3.7	4.0	4.0	4.3	3.3	3.0	3.0	3.7	4.0	4.0	3.7	3.7
LSD VALUE	1.5	22.4	0.8	0.8	1.0	1.3	1.1	1.0	1.0	1.0	0.9	0.6	0.6	0.7	0.6
C.V. (%)	17.6	64.6	9.2	9.3	9.9	12.2	9.7	10.0	10.8	10.3	9.5	6.4	6.5	8.3	6.3

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 6. MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN UNDER DROUGHT STRESS AT LOGAN, UT 1/
2016 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	SPRING	QUALITY RATINGS							MEAN
	GREENUP	APR	MAY	JUN	JUL	AUG	SEP	OCT	
KINGDOM	9.0	7.7	7.0	7.3	6.7	7.0	7.3	8.0	7.3
PST-ROPS	9.0	6.7	7.3	7.0	5.7	7.3	7.0	7.3	6.9
PIRANHA (DC-1)	9.0	6.7	6.3	7.0	5.3	6.3	7.7	6.7	6.6
ARMOR	9.0	7.0	6.3	6.0	6.3	5.7	6.7	7.0	6.4
PURE SELECT	8.3	6.3	7.0	7.0	5.7	6.0	6.3	6.3	6.4
DLFPS-AP/3018	9.0	5.3	7.3	6.7	5.7	5.3	7.0	6.7	6.3
DLFPS-AP/3058	9.0	6.7	6.3	6.0	5.7	6.3	6.3	6.7	6.3
GDE	9.0	6.3	6.3	7.0	5.3	6.3	6.3	6.3	6.3
V-8	9.0	6.0	6.7	6.7	5.7	6.7	6.3	6.0	6.3
NIGHTLIFE	9.0	6.7	7.0	6.3	5.7	5.0	5.7	7.0	6.2
777 (DLFPS-AP/3054)	8.7	6.7	6.3	6.0	6.0	5.7	6.3	5.7	6.1
L-93 XD	9.0	6.0	6.3	6.0	4.7	6.0	6.7	6.0	6.0
DLFPS-AP/3056	9.0	5.7	5.7	6.0	5.3	5.7	6.7	6.0	5.9
SHARK	9.0	6.3	5.7	6.0	4.3	5.3	6.0	6.7	5.8
BARRACUDA	9.0	5.7	6.0	5.7	4.3	4.7	6.3	5.7	5.5
DECLARATION	9.0	6.0	5.7	6.3	4.0	4.7	6.3	5.3	5.5
LUMINARY	9.0	6.0	5.3	6.3	5.0	4.7	5.7	4.7	5.4
DLFPS-AP/3059	9.0	5.0	5.3	5.0	4.3	5.0	5.3	4.7	5.0
PENN A-1	8.3	5.3	5.3	5.3	4.3	4.3	5.3	4.0	4.9
PENNCROSS	8.0	3.0	3.0	2.7	2.7	3.0	3.7	2.7	3.0
LSD VALUE	0.4	1.3	1.1	1.2	1.2	1.2	1.0	1.0	0.6
C.V. (%)	2.6	12.4	10.7	12.3	14.1	12.8	9.6	10.9	6.6

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 7.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT SAN FRANCISCO (CALIFORNIA GOLF CLUB OF SAN FRANCISCO), CA 1/
2016 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	GENETIC COLOR	DENSITY SUMMER	DENSITY FALL	PINK SNOW MOLD	QUALITY RATINGS												MEAN
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
L-93 XD	7.0	7.0	7.0	8.0	6.3	6.3	6.3	7.3	7.7	7.0	6.7	6.7	7.0	6.0	6.7	7.0	6.8
PURE SELECT	6.7	7.3	7.0	6.0	6.7	6.7	6.7	6.7	7.3	7.3	7.0	6.3	7.0	6.3	6.7	7.3	6.8
KINGDOM	8.0	5.7	6.3	8.0	7.0	7.0	7.0	6.3	7.3	6.0	6.7	6.3	6.7	5.7	6.3	7.0	6.6
777 (DLFPS-AP/3054)	7.0	7.0	6.3	8.7	6.0	6.0	6.0	6.7	7.7	7.0	6.3	6.7	6.7	6.0	6.7	6.7	6.5
NIGHTLIFE	8.0	6.0	7.0	8.0	7.0	7.0	7.0	6.3	7.0	6.0	6.3	6.0	6.7	5.7	6.3	7.0	6.5
BARRACUDA	6.7	6.7	6.3	8.0	6.7	6.7	6.7	6.3	7.3	6.7	6.0	6.0	6.3	5.7	6.0	6.7	6.4
DLFPS-AP/3018	6.3	7.0	6.7	6.3	6.3	6.3	6.3	6.3	7.0	7.0	6.0	6.0	6.7	6.0	6.3	6.7	6.4
GDE	7.3	6.0	6.3	7.7	6.3	6.3	6.3	6.7	7.0	6.0	6.0	6.0	7.0	5.7	6.0	7.0	6.4
PST-ROPS	7.0	7.7	7.0	6.0	6.0	5.7	5.7	6.3	7.0	7.3	6.3	6.3	7.0	5.3	6.3	7.3	6.4
SHARK	6.7	6.7	6.7	7.0	6.3	6.3	6.3	5.7	7.7	6.7	6.3	6.3	6.7	5.7	6.0	6.3	6.4
V-8	7.0	6.7	6.7	8.0	6.0	6.0	6.0	6.0	7.3	6.7	6.7	6.0	7.0	6.0	6.7	6.3	6.4
ARMOR	8.0	6.0	6.3	7.7	6.7	6.7	6.7	6.0	7.0	6.0	5.7	5.7	6.7	5.3	6.3	6.7	6.3
DLFPS-AP/3058	7.0	6.3	6.7	6.7	6.0	6.0	6.0	6.7	7.0	6.0	6.0	6.3	6.7	5.7	6.7	6.7	6.3
DLFPS-AP/3056	7.0	6.0	6.7	7.0	6.0	6.0	6.0	5.7	7.3	6.3	5.7	6.0	6.7	5.3	6.3	6.7	6.2
PENN A-1	8.0	5.7	6.0	7.0	6.0	6.0	6.0	6.3	7.3	6.0	6.0	6.0	6.0	6.0	6.0	6.3	6.2
LUMINARY	6.0	5.7	6.0	7.7	6.0	6.0	6.0	6.0	7.0	5.7	6.0	6.3	6.0	5.7	6.3	6.7	6.1
PIRANHA (DC-1)	7.0	7.0	6.3	6.7	6.0	6.0	6.0	5.7	7.0	6.7	6.0	6.0	6.3	5.3	6.3	6.3	6.1
DLFPS-AP/3059	6.0	5.3	6.0	8.0	6.0	6.0	6.0	6.0	6.7	5.3	5.7	5.7	6.3	5.7	6.0	5.7	5.9
DECLARATION	6.7	5.3	5.3	7.3	6.0	6.0	6.0	6.3	6.7	5.0	5.7	5.7	5.7	4.7	5.0	5.3	5.7
PENNCROSS	4.3	4.0	5.0	8.0	6.0	5.7	5.7	4.7	6.3	4.0	4.3	5.0	5.0	4.7	4.7	5.0	5.1
LSD VALUE	0.6	0.8	0.8	1.2	0.6	0.7	0.7	0.9	1.3	0.8	0.9	1.5	0.8	1.5	1.1	1.2	0.4
C.V. (%)	6.1	8.5	7.1	9.1	5.5	6.3	6.3	8.0	7.1	7.8	8.4	9.4	6.9	10.7	9.2	9.4	4.2

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 8.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT LOS ANGELES (LOS ANGELES COUNTRY CLUB), CA 1/
2016 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	GENETIC COLOR	DENISTY SPRING	DENSITY SUMMER	PERCENT						QUALITY RATINGS							MEAN
				POA ANNUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
PST-ROPS	7.3	7.3	7.3	2.0	6.3	7.3	7.0	7.3	7.7	7.3	8.0	8.0	8.0	8.0	8.0	8.0	7.6
777	7.0	7.0	7.0	4.7	6.7	7.0	6.7	7.3	7.3	7.0	7.3	7.7	7.3	7.3	7.3	7.3	7.2
L-93 XD	6.7	7.0	7.0	0.7	6.0	6.3	7.0	7.0	7.7	7.3	8.0	7.7	7.7	7.0	7.3	7.3	7.2
DC-1	7.3	7.0	7.0	0.7	6.7	7.0	7.3	7.3	7.0	7.0	7.7	7.3	7.3	7.0	6.7	6.7	7.1
DLFPS-AP/3018	6.7	7.3	6.7	0.7	6.0	6.7	7.0	7.3	7.0	7.0	7.7	7.7	7.7	7.0	7.3	7.0	7.1
DLFPS-AP/3058	7.0	7.3	7.0	2.0	6.3	7.0	7.0	7.0	7.3	7.0	7.7	7.3	7.3	6.7	7.0	7.0	7.1
LUMINARY	7.3	6.7	6.7	4.0	6.7	6.7	6.0	7.3	7.7	7.0	7.7	7.7	7.3	6.7	6.7	6.3	7.0
DLFPS-AP/3056	7.3	7.0	6.7	2.7	6.7	6.7	6.7	6.7	7.0	6.7	7.3	7.3	7.0	7.0	6.7	6.7	6.9
GDE	7.0	6.7	6.7	4.0	6.7	6.7	6.0	6.7	7.0	6.7	7.0	7.0	7.0	7.0	7.0	7.0	6.8
SHARK	7.0	6.7	7.0	0.7	6.3	6.7	6.7	7.0	7.0	7.0	7.0	7.0	7.0	6.7	6.7	6.7	6.8
V-8	7.3	6.7	6.7	3.0	6.7	6.7	6.0	7.0	7.0	6.7	7.0	7.0	7.0	7.0	7.0	7.0	6.8
ARMOR	8.0	7.0	6.7	4.7	5.7	6.3	7.0	7.0	6.7	6.3	7.0	7.0	7.0	6.7	6.7	6.7	6.7
BARRACUDA	7.3	7.0	7.0	4.7	6.3	6.7	6.0	6.7	6.7	6.3	6.7	7.0	6.7	7.0	6.7	7.0	6.6
KINGDOM	7.7	6.7	6.3	8.3	6.0	6.0	6.0	7.0	6.7	6.3	6.7	6.7	7.0	6.7	7.0	7.0	6.6
PENN A-1	7.7	6.7	6.7	3.0	7.0	7.0	6.3	7.0	7.0	6.3	7.0	7.0	7.0	6.0	6.0	6.0	6.6
NIGHTLIFE	8.0	7.0	6.0	5.7	6.0	6.3	6.3	7.0	6.7	6.0	7.0	7.0	7.0	6.7	6.0	6.0	6.5
PURE SELECT	7.0	6.7	7.0	1.7	6.3	6.3	6.7	6.3	6.3	7.3	6.3	6.3	6.3	6.3	6.3	6.3	6.4
DECLARATION	6.7	6.7	6.0	3.7	6.3	6.7	6.0	6.3	7.0	5.7	6.3	6.3	6.7	6.0	6.3	6.0	6.3
DLFPS-AP/3059	6.7	6.3	6.0	3.0	6.0	6.3	6.0	6.7	6.7	6.3	6.7	6.7	6.3	6.0	6.3	6.0	6.3
PENNCROSS	5.7	5.0	6.0	5.7	6.3	6.3	5.0	6.3	6.3	5.0	6.3	6.3	6.3	5.7	5.3	5.0	5.9
LSD VALUE	1.1	0.8	0.7	2.5	1.9	1.4	0.8	1.0	1.4	0.9	0.8	1.0	0.8	0.6	0.9	0.7	0.5
C.V. (%)	8.1	6.7	5.8	46.4	9.8	7.6	7.2	6.5	8.0	7.5	6.3	7.2	6.2	5.8	7.7	6.3	4.5

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN.
STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 9.

MEAN TURFGRASS QUALITY AND OTHER RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT GLENVIEW (NORTH SHORE COUNTRY CLUB), IL 1/
2016 DATA

TURFGRASS QUALITY AND OTHER RATINGS 1-9; 9=BEST 2/

NAME	GENETIC COLOR	FALL COLOR	QUALITY RATINGS							
		NOVEMBER	APR	MAY	JUN	JUL	AUG	SEP	OCT	MEAN
GDE	6.0	5.3	7.0	7.3	6.0	6.7	7.0	7.0	7.3	6.9
777 (DLFPS-AP/3054)	6.3	5.7	7.0	7.3	6.0	5.7	7.7	6.3	7.0	6.7
PIRANHA (DC-1)	5.7	5.3	6.3	7.7	6.3	6.3	7.3	6.7	6.0	6.7
DLFPS-AP/3056	6.0	5.3	6.3	7.3	5.7	6.3	7.3	6.3	6.7	6.6
DLFPS-AP/3059	5.7	5.7	6.7	6.0	6.7	7.0	7.3	6.3	5.7	6.5
PST-ROPS	4.7	6.3	7.0	6.7	5.3	6.7	6.7	6.7	6.0	6.4
DLFPS-AP/3058	6.0	6.3	6.0	6.3	5.3	6.0	7.0	7.3	6.0	6.3
LUMINARY	5.3	5.3	6.0	7.3	6.3	6.7	7.0	5.3	5.7	6.3
BARRACUDA	5.7	6.3	7.0	6.3	5.0	6.7	6.7	6.3	5.7	6.2
DLFPS-AP/3018	5.3	5.7	6.3	6.3	5.3	6.3	7.3	6.0	6.0	6.2
PENN A-1	6.0	4.7	6.0	7.3	5.7	6.0	6.3	6.3	5.7	6.2
PURE SELECT	5.7	5.0	6.3	6.7	5.0	5.7	7.0	6.7	5.3	6.1
ARMOR	5.7	5.3	6.0	6.3	5.7	6.0	6.7	5.7	5.3	6.0
NIGHTLIFE	5.7	5.3	6.7	6.3	5.3	6.0	6.7	6.0	5.0	6.0
SHARK	5.0	5.3	6.3	6.3	6.3	6.0	6.7	6.0	4.7	6.0
V-8	5.3	4.7	6.3	6.0	6.0	6.0	6.7	6.0	5.0	6.0
PENNCROSS	5.3	5.3	6.0	6.0	5.3	5.3	5.7	6.0	5.0	5.6
DECLARATION	5.3	5.0	6.0	5.7	5.0	6.0	5.7	5.0	4.0	5.3
L-93 XD	5.3	5.3	6.0	6.3	5.0	4.7	6.0	5.0	4.0	5.3
KINGDOM	6.0	4.7	4.7	5.3	5.0	5.7	6.3	5.3	4.3	5.2
LSD VALUE	3.2	1.5	1.8	1.4	5.1	3.3	2.0	1.5	1.9	1.3
C.V. (%)	16.1	12.1	11.9	11.0	24.6	16.9	11.9	11.7	17.6	9.8

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 10.

GENETIC COLOR RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

GENETIC COLOR RATINGS 1-9; 9=DARK GREEN 2/

NAME	GA3	IA1	IN1	KS1	MI1	MN1	NC1	NJ1	UT1	VA1	MEAN
NIGHTLIFE	8.0	9.0	7.3	8.0	8.0	9.0	8.0	8.7	8.7	8.0	8.3
KINGDOM	8.0	9.0	7.0	7.0	7.7	9.0	8.0	8.3	9.0	8.0	8.1
ARMOR	8.0	9.0	7.3	8.0	7.7	9.0	8.0	7.7	8.0	8.0	8.1
DLFPS-AP/3056	8.0	7.7	5.7	6.7	6.7	7.7	7.0	5.7	5.7	7.0	6.8
PST-ROPS	8.0	8.7	8.0	6.7	6.0	5.7	7.0	4.3	5.7	6.0	6.6
PIRANHA (DC-1)	8.0	8.0	7.0	7.0	6.0	5.3	7.0	5.0	5.7	6.7	6.6
V-8	8.0	7.0	6.7	6.7	6.7	5.7	7.0	5.0	6.7	6.0	6.5
PENN A-1	7.3	6.7	6.3	6.7	6.7	6.3	6.7	6.0	5.3	6.7	6.5
777 (DLFPS-AP/3054)	8.0	7.7	6.7	6.3	6.0	5.7	7.3	4.7	5.7	6.3	6.4
DLFPS-AP/3018	7.3	7.3	7.0	7.0	6.0	5.0	7.0	5.3	6.0	6.3	6.4
GDE	7.7	7.7	6.3	6.3	6.0	5.3	7.0	5.0	6.3	6.3	6.4
LUMINARY	7.7	7.3	6.3	6.3	6.0	5.0	7.0	6.0	5.7	6.7	6.4
DLFPS-AP/3058	8.0	8.0	6.3	7.0	6.0	4.7	7.0	4.7	5.7	6.3	6.4
PURE SELECT	7.7	7.3	6.7	7.0	6.0	6.0	7.0	4.3	5.3	6.0	6.3
SHARK	7.7	6.7	7.0	6.3	6.0	4.7	6.7	4.7	6.3	6.3	6.2
L-93 XD	8.0	6.7	7.7	6.0	5.7	5.0	7.0	4.7	5.0	6.3	6.2
DLFPS-AP/3059	7.3	7.0	6.3	7.7	6.0	5.0	6.7	4.7	5.0	6.0	6.2
BARRACUDA	7.0	6.3	6.7	6.7	6.0	5.3	7.0	4.3	5.3	6.7	6.1
DECLARATION	7.0	6.3	6.3	6.7	5.0	5.3	7.0	5.3	4.7	6.3	6.0
PENNCROSS	7.0	6.0	4.0	7.0	6.3	4.0	5.3	3.0	2.7	6.3	5.2
LSD VALUE	0.5	1.1	0.9	0.8	0.7	1.2	0.5	0.9	1.3	1.2	0.3
C.V. (%)	4.4	9.5	8.0	7.1	6.5	12.9	4.1	9.9	13.6	11.2	8.9

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 11. SPRING GREENUP RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

SPRING GREENUP RATINGS 1-9; 9=COMPLETELY GREEN 2/

NAME	MI1	MN1	NC1	NJ1	UT1	MEAN
L-93 XD	7.0	7.0	7.0	8.3	8.7	7.6
PST-ROPS	7.3	7.3	7.0	7.7	8.7	7.6
777 (DLFPS-AP/3054)	6.7	7.0	7.0	7.3	9.0	7.4
PIRANHA (DC-1)	7.0	6.0	7.0	8.0	9.0	7.4
DLFPS-AP/3058	7.0	6.7	7.0	6.7	9.0	7.3
SHARK	6.7	7.0	7.0	6.3	9.0	7.2
GDE	6.7	5.7	7.0	7.0	9.0	7.1
BARRACUDA	6.0	6.3	7.0	7.0	9.0	7.1
DLFPS-AP/3056	7.3	6.0	7.0	6.0	9.0	7.1
LUMINARY	6.7	6.7	7.0	5.7	9.0	7.0
DLFPS-AP/3018	6.7	5.7	7.3	6.0	9.0	6.9
V-8	6.0	6.7	7.0	5.0	9.0	6.7
DECLARATION	5.7	5.7	7.0	6.0	9.0	6.7
NIGHTLIFE	7.0	7.0	7.0	3.7	8.7	6.7
DLFPS-AP/3059	6.7	5.3	7.0	4.7	9.0	6.5
ARMOR	6.3	6.3	7.0	3.3	9.0	6.4
PURE SELECT	6.0	6.3	7.3	3.3	8.7	6.3
KINGDOM	7.0	4.3	6.7	3.7	9.0	6.1
PENN A-1	5.7	4.7	7.0	4.0	8.3	5.9
PENNCROSS	5.0	2.0	6.3	2.0	8.0	4.7
LSD VALUE	1.2	1.5	0.4	1.5	0.5	0.5
C.V. (%)	11.7	16.0	3.7	16.3	3.3	10.4

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 12. LEAF TEXTURE RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

LEAF TEXTURE RATINGS 1-9; 9=VERY FINE 2/

NAME	IN1	NC1	MEAN
PST-ROPS	9.0	8.0	8.3
V-8	9.0	8.0	8.0
DLFPS-AP/3058	8.0	7.7	7.9
PIRANHA (DC-1)	8.0	8.0	7.9
PURE SELECT	8.3	8.0	7.9
DLFPS-AP/3018	7.7	8.0	7.8
SHARK	8.0	8.0	7.8
777 (DLFPS-AP/3054)	7.3	8.0	7.7
GDE	8.0	8.0	7.7
L-93 XD	7.0	8.0	7.7
BARRACUDA	6.7	8.0	7.4
ARMOR	7.3	8.0	7.3
DLFPS-AP/3056	6.7	7.7	7.3
KINGDOM	7.3	8.0	7.1
DECLARATION	6.7	8.0	7.0
DLFPS-AP/3059	6.3	8.0	7.0
LUMINARY	7.0	7.7	7.0
NIGHTLIFE	7.3	7.7	7.0
PENN A-1	6.3	8.0	6.8
PENNCROSS	3.7	6.0	3.9
LSD VALUE	1.0	0.4	0.5
C.V. (%)	8.1	3.3	8.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 13. SPRING DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	IN1	MN1	NC1	MEAN
PST-ROPS	8.7	7.7	7.3	7.9
V-8	8.7	7.7	7.0	7.8
L-93 XD	8.3	7.0	7.0	7.4
SHARK	8.3	7.3	6.7	7.4
PURE SELECT	8.3	6.7	7.3	7.4
DLFPS-AP/3018	7.7	6.7	7.7	7.3
777 (DLFPS-AP/3054)	7.7	6.7	7.3	7.2
GDE	8.0	6.7	7.0	7.2
DLFPS-AP/3056	7.3	7.3	7.0	7.2
DLFPS-AP/3058	7.3	7.0	7.3	7.2
BARRACUDA	7.7	6.7	6.7	7.0
PIRANHA (DC-1)	7.7	6.7	6.7	7.0
NIGHTLIFE	7.7	6.0	6.7	6.8
ARMOR	7.3	6.0	6.7	6.7
KINGDOM	8.0	6.0	5.7	6.6
DECLARATION	6.7	6.7	6.0	6.4
LUMINARY	6.7	6.0	6.7	6.4
PENN A-1	6.7	6.0	6.3	6.3
DLFPS-AP/3059	6.0	5.3	6.7	6.0
PENNCROSS	4.7	2.3	4.0	3.7
LSD VALUE	0.9	1.0	1.1	0.6
C.V. (%)	7.7	10.1	9.8	9.2

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 14. SUMMER DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	GA3	IN1	NC1	OK1	MEAN
PST-ROPS	5.0	9.0	9.0	8.0	7.8
DLFPS-AP/3018	5.0	8.0	8.7	7.7	7.3
PURE SELECT	5.0	7.7	8.0	8.0	7.2
777 (DLFPS-AP/3054)	5.0	8.3	8.3	6.7	7.1
ARMOR	5.0	7.7	7.7	7.7	7.0
DLFPS-AP/3058	5.0	7.3	8.0	7.7	7.0
NIGHTLIFE	5.0	7.3	7.7	8.0	7.0
V-8	5.0	7.7	8.0	7.3	7.0
SHARK	5.0	7.0	8.0	7.7	6.9
L-93 XD	5.0	7.7	8.0	6.7	6.8
DLFPS-AP/3056	5.0	7.0	8.0	7.3	6.8
PIRANHA (DC-1)	5.0	7.3	8.0	7.0	6.8
GDE	5.0	6.7	8.0	7.3	6.8
KINGDOM	5.0	7.0	7.7	7.3	6.8
LUMINARY	4.7	6.7	7.7	7.0	6.5
BARRACUDA	5.0	6.3	7.7	6.7	6.4
DLFPS-AP/3059	5.0	6.3	7.7	6.7	6.4
PENN A-1	5.0	5.7	7.7	7.3	6.4
DECLARATION	5.0	5.7	7.0	6.3	6.0
PENNCROSS	4.0	4.0	5.0	6.0	4.8
LSD VALUE	0.2	0.9	1.0	0.9	0.4
C.V. (%)	2.6	8.2	7.6	7.4	7.4

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 15. FALL DENSITY RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

DENSITY RATINGS 1-9; 9=MAXIMUM DENSITY 2/

NAME	GA3	NC1	NJ1	OK1	MEAN
PST-ROPS	5.0	9.0	7.7	8.0	7.4
L-93 XD	3.3	9.0	8.0	7.3	6.9
PURE SELECT	4.7	9.0	6.7	7.3	6.9
PIRANHA (DC-1)	4.0	8.7	7.7	7.0	6.8
SHARK	3.7	9.0	7.0	7.7	6.8
777 (DLFPS-AP/3054)	4.0	8.7	7.7	6.7	6.8
DLFPS-AP/3018	3.3	9.0	7.7	7.0	6.8
DLFPS-AP/3056	4.3	8.3	7.3	7.0	6.8
DLFPS-AP/3058	4.0	9.0	8.0	6.0	6.8
BARRACUDA	3.3	9.0	7.3	7.0	6.7
V-8	3.3	8.7	8.0	6.7	6.7
ARMOR	4.3	9.0	5.7	6.7	6.4
LUMINARY	4.7	8.7	6.3	6.0	6.4
DLFPS-AP/3059	3.7	8.7	6.0	7.0	6.3
GDE	3.0	9.0	6.0	7.3	6.3
NIGHTLIFE	4.3	8.7	5.3	6.7	6.3
DECLARATION	3.0	8.3	6.7	6.7	6.2
PENN A-1	3.0	8.7	4.7	6.7	5.8
KINGDOM	3.3	8.7	3.0	6.7	5.4
PENNCROSS	3.7	6.7	1.3	6.0	4.4
LSD VALUE	0.8	0.7	1.2	0.8	0.4
C.V. (%)	13.6	4.9	11.2	7.0	8.5

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 16. PERCENT LIVING GROUND COVER (SPRING) RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

PERCENT LIVING GROUND COVER IN SPRING: LOCATIONS 2/

NAME	NC1	OK1	MEAN
DLFPS-AP/3018	84.3	95.7	90.0
DLFPS-AP/3058	84.0	94.7	89.3
L-93 XD	84.0	94.3	89.2
777 (DLFPS-AP/3054)	80.7	97.0	88.8
BARRACUDA	80.3	97.0	88.7
DLFPS-AP/3056	81.0	96.0	88.5
SHARK	80.3	96.7	88.5
LUMINARY	81.0	95.7	88.3
GDE	80.7	95.7	88.2
V-8	80.7	95.7	88.2
PIRANHA (DC-1)	80.3	95.7	88.0
PST-ROPS	81.0	95.0	88.0
DLFPS-AP/3059	80.3	95.3	87.8
NIGHTLIFE	77.0	97.3	87.2
PURE SELECT	80.7	92.7	86.7
PENN A-1	77.3	96.0	86.7
ARMOR	77.0	95.7	86.3
DECLARATION	77.0	95.7	86.3
KINGDOM	73.3	94.3	83.8
PENNCROSS	63.0	95.3	79.2
LSD VALUE	8.8	3.4	4.7
C.V. (%)	6.9	2.2	4.7

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 17. PERCENT LIVING GROUND COVER (SUMMER) RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

PERCENT LIVING GROUND COVER IN SUMMER: LOCATIONS 2/

NAME	NC1	OK1	MEAN
BARRACUDA	99.0	99.0	99.0
DLFPS-AP/3058	99.0	99.0	99.0
KINGDOM	99.0	99.0	99.0
PENN A-1	99.0	99.0	99.0
PURE SELECT	99.0	99.0	99.0
SHARK	99.0	99.0	99.0
V-8	99.0	99.0	99.0
DECLARATION	99.0	98.7	98.8
DLFPS-AP/3059	99.0	98.7	98.8
NIGHTLIFE	99.0	98.7	98.8
DLFPS-AP/3056	99.0	98.3	98.7
LUMINARY	99.0	98.3	98.7
GDE	99.0	98.0	98.5
ARMOR	99.0	97.7	98.3
L-93 XD	99.0	97.7	98.3
PIRANHA (DC-1)	99.0	96.3	97.7
PENNCROSS	95.7	99.0	97.3
PST-ROPS	99.0	95.7	97.3
DLFPS-AP/3018	99.0	94.0	96.5
777 (DLFPS-AP/3054)	99.0	89.3	94.2
LSD VALUE	0.4	3.9	2.0
C.V. (%)	0.3	2.5	1.8

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 18. PERCENT LIVING GROUND COVER (FALL) RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

PERCENT LIVING GROUND COVER IN FALL: LOCATIONS 2/

NAME	NC1	OK1	MEAN
777 (DLFPS-AP/3054)	99.0	99.0	99.0
ARMOR	99.0	99.0	99.0
BARRACUDA	99.0	99.0	99.0
DECLARATION	99.0	99.0	99.0
DLFPS-AP/3018	99.0	99.0	99.0
DLFPS-AP/3056	99.0	99.0	99.0
DLFPS-AP/3058	99.0	99.0	99.0
DLFPS-AP/3059	99.0	99.0	99.0
GDE	99.0	99.0	99.0
KINGDOM	99.0	99.0	99.0
L-93 XD	99.0	99.0	99.0
LUMINARY	99.0	99.0	99.0
NIGHTLIFE	99.0	99.0	99.0
PENN A-1	99.0	99.0	99.0
PIRANHA (DC-1)	99.0	99.0	99.0
PURE SELECT	99.0	99.0	99.0
V-8	99.0	99.0	99.0
PST-ROPS	99.0	98.7	98.8
SHARK	99.0	98.3	98.7
PENNCROSS	97.7	99.0	98.3
LSD VALUE	0.2	0.3	0.2
C.V. (%)	0.1	0.2	0.2

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 19. WINTER COLOR RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

WINTER COLOR RATINGS 1-9; 9=COMPLETE COLOR RETENTION 2/

NAME	NC1	OK1	MEAN
BARRACUDA	5.3	7.0	6.2
DLFPS-AP/3056	5.0	7.0	6.0
777 (DLFPS-AP/3054)	5.7	6.0	5.8
GDE	5.3	6.3	5.8
DLFPS-AP/3018	5.7	5.7	5.7
DECLARATION	5.0	6.3	5.7
DLFPS-AP/3059	5.0	6.3	5.7
LUMINARY	5.3	6.0	5.7
DLFPS-AP/3058	5.3	5.7	5.5
PIRANHA (DC-1)	5.0	6.0	5.5
SHARK	5.0	6.0	5.5
V-8	5.0	6.0	5.5
PENN A-1	4.7	5.7	5.2
L-93 XD	5.3	5.0	5.2
PST-ROPS	5.3	5.0	5.2
ARMOR	5.3	4.7	5.0
PURE SELECT	5.0	5.0	5.0
NIGHTLIFE	4.7	4.7	4.7
PENNCROSS	3.7	5.7	4.7
KINGDOM	4.3	4.0	4.2
LSD VALUE	0.7	0.8	0.5
C.V. (%)	9.2	8.8	9.0

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 20.

DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	KS1	KY1	MI1	MN1	MO1	NC1	NJ1	VA1	MEAN
DECLARATION	7.7	9.0	9.0	8.0	9.0	7.7	8.3	2.3	7.6
GDE	8.7	8.0	9.0	7.0	8.3	7.7	7.0	2.3	7.3
L-93 XD	8.0	8.3	8.7	7.0	8.7	8.7	6.3	2.3	7.3
DLFPS-AP/3058	8.3	8.3	8.7	7.3	8.0	7.7	7.0	2.3	7.2
LUMINARY	8.7	8.3	8.7	6.7	8.0	7.7	7.3	2.3	7.2
BARRACUDA	7.0	7.7	8.3	7.3	8.0	8.0	7.7	2.7	7.1
PIRANHA (DC-1)	6.7	8.3	8.3	7.0	7.7	8.7	6.3	2.7	7.0
DLFPS-AP/3018	8.3	8.0	8.0	6.3	7.3	9.0	5.3	3.0	6.9
PENN A-1	8.0	6.7	8.3	6.0	7.7	6.3	7.7	4.3	6.9
V-8	7.3	7.7	8.7	5.3	7.7	8.0	7.3	2.7	6.8
PENNCROSS	6.3	7.7	8.3	6.7	6.3	7.0	7.7	3.0	6.6
DLFPS-AP/3056	6.7	8.0	8.3	5.3	7.0	8.0	6.3	3.0	6.6
DLFPS-AP/3059	5.7	7.0	8.0	5.7	7.3	8.0	6.7	3.7	6.5
KINGDOM	6.3	7.0	7.0	4.3	6.0	6.3	6.0	4.7	6.0
777 (DLFPS-AP/3054)	5.3	7.3	7.7	4.7	5.7	8.0	5.3	3.0	5.9
PURE SELECT	5.0	6.0	7.7	3.3	6.0	7.0	5.3	4.7	5.6
NIGHTLIFE	5.3	6.7	6.7	3.7	6.0	6.3	5.3	3.7	5.5
PST-ROPS	7.0	5.0	7.0	4.0	4.3	6.7	4.3	4.0	5.3
SHARK	6.3	3.3	7.3	3.7	6.0	6.0	5.0	3.7	5.2
ARMOR	2.7	2.3	5.3	1.0	4.3	3.3	5.0	5.7	3.7
LSD VALUE	2.2	1.0	0.9	1.7	2.0	1.2	1.3	1.3	0.5
C.V. (%)	20.1	9.0	6.7	19.6	17.8	10.0	12.7	25.4	14.7

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 21. BROWN PATCH (WARM TEMPERATURE) RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

BROWN PATCH RATINGS 1-9; 9=NO DISEASE 2/

NAME	KY1	MO1	NJ1	MEAN
LUMINARY	6.7	8.3	9.0	8.0
PST-ROPS	6.7	8.7	8.7	8.0
PIRANHA (DC-1)	6.0	8.7	8.7	7.8
PURE SELECT	6.7	7.3	8.0	7.3
BARRACUDA	5.7	7.0	9.0	7.2
777 (DLFPS-AP/3054)	6.0	8.3	7.0	7.1
GDE	5.7	7.0	8.3	7.0
DLFPS-AP/3059	4.7	7.7	8.3	6.9
ARMOR	5.7	6.0	8.3	6.7
KINGDOM	6.7	7.0	6.3	6.7
L-93 XD	4.3	7.3	7.7	6.4
DLFPS-AP/3056	5.0	6.3	7.7	6.3
NIGHTLIFE	5.3	7.0	6.7	6.3
SHARK	4.7	5.7	8.7	6.3
DECLARATION	5.0	6.3	7.3	6.2
PENNCROSS	7.0	7.0	4.3	6.1
DLFPS-AP/3018	4.7	5.3	8.0	6.0
DLFPS-AP/3058	5.0	6.0	6.3	5.8
V-8	4.0	5.3	7.7	5.7
PENN A-1	3.7	4.0	6.7	4.8
LSD VALUE	1.8	2.7	2.4	1.3
C.V. (%)	20.7	24.3	19.4	21.7

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 22. ANTHRACNOSE RATINGS OF BENTGRASS CULTIVARS 1/
GROWN ON A GREEN
2016 DATA

ANTHRACNOSE RATINGS 1-9; 9=NO DISEASE 2/

NAME	NC1	NJ1	MEAN
DLFPS-AP/3018	7.3	9.0	8.2
L-93 XD	6.7	9.0	7.8
DLFPS-AP/3058	6.7	8.3	7.5
LUMINARY	6.0	9.0	7.5
777 (DLFPS-AP/3054)	5.7	9.0	7.3
PIRANHA (DC-1)	5.7	9.0	7.3
BARRACUDA	5.3	8.7	7.0
PST-ROPS	5.0	9.0	7.0
SHARK	5.0	9.0	7.0
V-8	6.7	7.3	7.0
GDE	6.0	7.3	6.7
ARMOR	6.3	6.3	6.3
PURE SELECT	3.7	9.0	6.3
DLFPS-AP/3059	5.3	6.7	6.0
DLFPS-AP/3056	2.7	8.0	5.3
NIGHTLIFE	4.7	5.0	4.8
KINGDOM	6.0	3.3	4.7
DECLARATION	5.7	3.0	4.3
PENN A-1	5.3	3.0	4.2
PENNCROSS	6.0	1.0	3.5
LSD VALUE	1.6	1.7	1.2
C.V. (%)	18.2	15.1	16.5

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 23. COPPER SPOT RATINGS OF BENTGRASS CULTIVARS 1/
 GROWN ON A GREEN
 2016 DATA

COPPER SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	M01
PENNCROSS	7.7
GDE	6.7
777 (DLFPS-AP/3054)	6.3
ARMOR	6.3
PENN A-1	6.3
PIRANHA (DC-1)	6.3
DECLARATION	5.0
DLFPS-AP/3056	5.0
DLFPS-AP/3059	5.0
KINGDOM	5.0
DLFPS-AP/3018	4.7
PST-ROPS	4.7
BARRACUDA	4.3
DLFPS-AP/3058	4.3
L-93 XD	4.3
V-8	4.3
LUMINARY	4.0
NIGHTLIFE	4.0
PURE SELECT	3.7
SHARK	3.7
LSD VALUE	2.9
C.V. (%)	35.4

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 24. DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT MANHATTAN, KS 1/
2016 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	SEP_01	SEP_23	MEAN
LUMINARY	8.7	9.0	8.8
GDE	8.7	8.7	8.7
DLFPS-AP/3018	8.3	8.3	8.3
DLFPS-AP/3058	8.3	8.3	8.3
L-93 XD	8.0	8.7	8.3
DECLARATION	7.7	8.7	8.2
PENN A-1	8.0	8.3	8.2
BARRACUDA	7.0	8.0	7.5
V-8	7.3	7.3	7.3
PST-ROPS	7.0	7.3	7.2
KINGDOM	6.3	7.7	7.0
DLFPS-AP/3056	6.7	6.7	6.7
PENNCROSS	6.3	7.0	6.7
PIRANHA (DC-1)	6.7	6.7	6.7
SHARK	6.3	6.3	6.3
777 (DLFPS-AP/3054)	5.3	6.3	5.8
DLFPS-AP/3059	5.7	6.0	5.8
PURE SELECT	5.0	6.0	5.5
NIGHTLIFE	5.3	5.0	5.2
ARMOR	2.7	3.3	3.0
LSD VALUE	2.1	2.1	2.0
C.V. (%)	18.5	17.2	17.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 25. DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT LEXINGTON, KY 1/
2016 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	JUNE	JULY	MEAN
DECLARATION	9.0	7.0	8.0
L-93 XD	8.3	6.7	7.5
GDE	8.0	6.7	7.3
BARRACUDA	7.7	6.3	7.0
DLFPS-AP/3058	8.3	5.7	7.0
LUMINARY	8.3	5.7	7.0
PIRANHA (DC-1)	8.3	5.7	7.0
DLFPS-AP/3018	8.0	5.7	6.8
PENNCROSS	7.7	6.0	6.8
V-8	7.7	5.7	6.7
DLFPS-AP/3056	8.0	4.7	6.3
777 (DLFPS-AP/3054)	7.3	4.3	5.8
KINGDOM	7.0	4.3	5.7
PENN A-1	6.7	4.7	5.7
DLFPS-AP/3059	7.0	4.0	5.5
NIGHTLIFE	6.7	4.3	5.5
PURE SELECT	6.0	3.3	4.7
PST-ROPS	5.0	3.7	4.3
SHARK	3.3	4.3	3.8
ARMOR	2.3	4.3	3.3
LSD VALUE	1.0	1.5	1.0
C.V. (%)	9.2	17.5	11.1

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 26. DOLLAR SPOT COUNTS OF BENTGRASS CULTIVARS
GROWN ON A GREEN AT WEST LAFAYETTE, IN 1/
2016 DATA

DOLLAR SPOT COUNTS PER PLOT 2/			
NAME	JUNE	AUGUST	MEAN
ARMOR	36.7	8.3	22.5
SHARK	14.0	5.3	9.7
NIGHTLIFE	10.0	6.3	8.2
PST-ROPS	7.7	5.3	6.5
KINGDOM	9.3	3.3	6.3
PURE SELECT	9.0	2.7	5.8
V-8	7.3	4.3	5.8
777 (DLFPS-AP/3054)	3.3	5.7	4.5
PENN A-1	8.3	0.3	4.3
LUMINARY	3.7	3.3	3.5
DLFPS-AP/3059	4.3	2.3	3.3
L-93 XD	0.3	6.3	3.3
PENNCROSS	5.7	0.7	3.2
DLFPS-AP/3056	4.7	1.0	2.8
BARRACUDA	2.3	3.0	2.7
DLFPS-AP/3018	1.7	3.7	2.7
PIRANHA (DC-1)	1.0	3.7	2.3
DLFPS-AP/3058	1.7	2.7	2.2
GDE	1.0	2.0	1.5
DECLARATION	1.3	0.7	1.0
LSD VALUE	8.4	6.1	3.6
C.V. (%)	78.7	77.0	45.3

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 27. DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS
 GROWN ON A GREEN AT EAST LANSING, MI 1/
 2016 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	AUGUST	SEPTEMBER	OCTOBER	MEAN
DECLARATION	9.0	9.0	8.3	8.8
GDE	9.0	9.0	8.3	8.8
PIRANHA (DC-1)	8.3	9.0	8.3	8.6
BARRACUDA	8.3	9.0	7.7	8.3
DLFPS-AP/3058	8.7	9.0	7.3	8.3
L-93 XD	8.7	9.0	7.3	8.3
V-8	8.7	8.3	8.0	8.3
DLFPS-AP/3018	8.0	8.7	7.0	7.9
DLFPS-AP/3059	8.0	8.3	7.3	7.9
LUMINARY	8.7	9.0	6.0	7.9
DLFPS-AP/3056	8.3	8.3	6.7	7.8
PENN A-1	8.3	8.0	7.0	7.8
PENNCROSS	8.3	7.7	7.0	7.7
PURE SELECT	7.7	8.0	7.3	7.7
777 (DLFPS-AP/3054)	7.7	8.0	6.7	7.4
PST-ROPS	7.0	8.3	6.3	7.2
SHARK	7.3	7.3	6.0	6.9
NIGHTLIFE	6.7	6.3	5.7	6.2
KINGDOM	7.0	6.0	5.3	6.1
ARMOR	5.3	5.0	5.0	5.1
LSD VALUE	0.8	0.8	2.6	0.8
C.V. (%)	6.8	6.6	17.2	6.7

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

TABLE 28. DOLLAR SPOT RATINGS OF BENTGRASS CULTIVARS
 GROWN ON A GREEN AT NORTH BRUNSWICK, NJ 1/
 2016 DATA

DOLLAR SPOT RATINGS 1-9; 9=NO DISEASE 2/

NAME	AUGUST	SEPTEMBER	OCTOBER	MEAN
DECLARATION	8.3	9.0	8.7	8.7
PENNCROSS	7.7	8.0	8.0	7.9
BARRACUDA	7.7	7.3	6.3	7.1
PENN A-1	7.7	7.3	6.3	7.1
DLFPS-AP/3058	7.0	6.3	6.7	6.7
LUMINARY	7.3	6.3	6.3	6.7
GDE	7.0	5.7	6.7	6.4
V-8	7.3	6.3	5.7	6.4
DLFPS-AP/3059	6.7	6.3	5.7	6.2
L-93 XD	6.3	5.3	6.3	6.0
KINGDOM	6.0	5.7	5.7	5.8
PIRANHA (DC-1)	6.3	5.3	5.0	5.6
DLFPS-AP/3056	6.3	5.0	5.0	5.4
DLFPS-AP/3018	5.3	4.3	4.7	4.8
NIGHTLIFE	5.3	4.7	4.3	4.8
777 (DLFPS-AP/3054)	5.3	4.0	4.3	4.6
SHARK	5.0	4.0	3.7	4.2
PURE SELECT	5.3	4.0	3.0	4.1
ARMOR	5.0	4.0	2.7	3.9
PST-ROPS	4.3	2.0	2.7	3.0
LSD VALUE	1.3	1.6	1.6	1.2
C.V. (%)	12.8	18.3	19.1	13.6

1/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

2/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

APPENDIX TABLE. SUMMARY OF TURFGRASS QUALITY RATINGS FOR BENTGRASS CULTIVARS
GROWN ON A GREEN
2016 DATA

TURFGRASS QUALITY RATINGS 1-9; 9=IDEAL TURF

NAME	QUALITY	MAXIMUM
	MEAN 1/	IN TOP 25% 2/
777 (DLFPS-AP/3054)	6.3	38.5
ARMOR	5.5	15.4
BARRACUDA	6.2	23.1
DECLARATION	5.8	0.0
DLFPS-AP/3018	6.3	46.2
DLFPS-AP/3056	6.2	23.1
DLFPS-AP/3058	6.4	23.1
DLFPS-AP/3059	5.7	0.0
GDE	6.2	30.8
KINGDOM	5.8	15.4
L-93 XD	6.3	38.5
LUMINARY	6.1	23.1
NIGHTLIFE	6.0	23.1
PENN A-1	5.7	0.0
PENNCROSS	4.1	0.0
PIRANHA (DC-1)	6.5	61.5
PST-ROPS	6.4	46.2
PURE SELECT	6.3	30.8
SHARK	6.0	0.0
V-8	6.1	23.1
LSD VALUE	0.2	
C.V. (%)	7.6	

*/ TO DETERMINE STATISTICAL DIFFERENCES AMONG ENTRIES, SUBTRACT ONE ENTRY'S MEAN FROM ANOTHER ENTRY'S MEAN. STATISTICAL DIFFERENCES OCCUR WHEN THIS VALUE IS LARGER THAN THE CORRESPONDING LSD VALUE (LSD 0.05).

**/ C.V. (COEFFICIENT OF VARIATION) INDICATES THE PERCENT VARIATION OF THE MEAN IN EACH COLUMN.

1/ MEAN AN AVERAGE OF ALL THE TURFGRASS QUALITY RATINGS FROM ALL LOCATIONS.

2/ MAXIMUM IN TOP 25%: THE PERCENTAGE OF LOCATIONS WHERE THAT ENTRY FINISHED IN THE TOP 25% OF ALL ENTRIES.